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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/729,768	12/06/2000	Keun Ok Lim	HI-029	7722
34610	7590	07/15/2004	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			OPSASNICK, MICHAEL N	
			ART UNIT	PAPER NUMBER
			2655	14

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/729,768

Applicant(s)

LIM, KEUN OK

Examiner

Michael N. Opsasnick

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ittycheriah et al (5452397) in view of Netsch et al (5167004).

As per claims 1,3,7,11, and 12, Ittycheriah et al (5452397) teaches a method for increasing voice recognition rate in a voice recognition system comprising the steps of establishing a reference model for user voices subjected to recognition (as enrolling phrase of the user – fig. 6);

“receiving the user voices for voice recognition commands” as speaker recognized voice command (Fig. 6, col. 3 lines 10-20, col. 5 lines 9-10\, col. 8 lines 45-51);

“detecting the range and characteristics of the received voice data” as detecting the energy base of the input voice data and determining acoustic vectors (Fig. 2)

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“comparing the range.....largest similarity” as comparing the characteristics of the utterance with the stored model (col. 4 lines 52-68)

“comparing the similarity of the retrieved word.....similarity reference.....report a voice recognition failure.....report a voice recognition success.....reference value”
searching for the best word based on the models loaded, returning the best model and a score, determining if it is a match or not (Fig. 3; fig. 6, col. 6 lines 40-67)

“modifying the characteristics.....recognition” as updating the model database for accepted phrases (col. 6 line 1-26)

Ittycheriah et al (5452397) does not explicitly teach updating the model after a successful recognition, however, Netsch et al (5167004) teaches updating the model after a successful recognition (col. 4 lines 64-69). Therefore, it would have been obvious to one of ordinary skill in the art of recognition to modify the teachings of Ittycheriah et al (5452397) with updating the models after a successful recognition because the new result would advantageously improve the accuracy of the recognition process (Netsch et al (5167004), col. 1 line 67 – col. 2 line 5).

As per claims 2,4,5,8,9, Ittycheriah et al (5452397) teaches extracting features for use in a HMM (col. 3 line 50-65).

As per claims 6,7,10-14,17, Ittycheriah et al (5452397) teaches the claim limitations pertaining to comparing the models to reference models, selecting the best

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match based on a comparison, and negatively or positively confirming a match (col. 6, lines 1-26; examiner notes that Ittycheriah et al (5452397) teaches replacement of the old phrase with the newly accepted phrase, and therefore, the voice model characteristics have change because the new model contains the accepted new version of the phrase and therefore the model characteristics, including the vectors, are changed)).

As per claims 15, 16, Ittycheriah et al (5452397) teaches phrase matching (col. 5 line 50 – col. 6 line 9).

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see related art listed on the PTO-892 form.

5. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231
or faxed to:
(703) 872 9314,

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(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

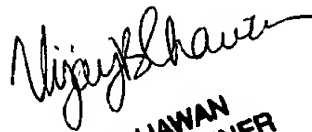
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (703)305-4089, who is available Tuesday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To, can be reached at (703)305-4827. The facsimile phone number for this group is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (703) 305-4750, the 2600 Customer Service telephone number is (703) 306-0377.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mno
7/11/04


VIJAY CHAWAN
PRIMARY EXAMINER